

Field Naturalists Club of Ballarat

JUNE 1985

EXCURSION - NEWS SHEET

- Meeting June 7 Stella Bedggood Memorial Lecture -
Natural History Photography of the late
Stella Bedggood - Mr. I. Pym
- Meeting July 5 Owls - Mr. E. Mc Nabb
- Excursion June 9 Canadian Forest - Mrs. F. Williamson
Half Day Excursion
- Excursion July 14 Fungi - area to be determined -
Mrs. F. Chuk
Half Day Excursion



PHOTOGRAPH - the late Stella Bedggood.

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Meetings, as specified, are held in the Art
Building of the School of Mines and Industries,
Lydiard Street South, Ballarat, commencing 7:30pm.
EXCURSIONS, AS SPECIFIED, COMMENCE FROM
CROCKERS, Cnr. STURT and ARMSTRONG STREETS,
BALLARAT, AT 9.30 am FOR FULL DAY OUTINGS.
OR AT 1.30 pm FOR HALF DAY.

MISTLETOES

Our speaker at the May meeting was Dr. Malcolm Calder, Reader in Botany at the University of Melbourne. His subject was the Mistletoe, a parasitic plant that most people know little or nothing about.

There are 12 different species of mistletoe in Victoria. They are flowering plants, actually shrubs, parasitically growing on trees, and are a taxonomic family. They are not fully parasitic as they have green leaves and so contribute something to their hosts.

The folklore concerning mistletoe is of the English or European mistletoe, *VICCUM* album, which is slightly different to those in Australia.

In America a dwarf mistletoe found on pine trees grows into the timber and spoils it commercially.

Mistletoes in Australia and Europe grow on the ends of branches. There is no mistletoe in Tasmania.

The smallest mistletoe in the World grows in Indonesia; it is a highly specialised plant.

The Western Australian Christmas Bush is really a mistletoe that is parasitic on the roots of trees. Eventually it takes over and becomes a tree.

Dodder Laurels are true parasites and are similar to mistletoes. *Exocarpus* or Cherry Ballart and Sandalwood are also parasitic.

The two groups in Australia are the LORANTHACEAE with large orange or red tubular flowers with green on the outside.

The second, VISCASAE, has very small greenish yellow flowers with separate male and female flowers.

The LORANTHACEAE have male and female in the one flower and grow mostly in the Southern Hemisphere but appear to be moving slowly North. Only in California does it cross the Equator.

In Australia they rely on Honeyeaters and the Mistletoe Bird for pollination and distribution.

One, the creeping mistletoe (*MUELLERINA* *eaucalyptoides*), has adapted itself to introduced trees.

AMYEMA linophyllum :- The Buloke Mistletoe grows on Buloke and has very attractive flowers, woolly on the outside and orange to pinkish red inside. The leaves are cylindrical, velvety grey and often erect.

A. miguellii :- The Box Mistletoe, grows mainly on box trees. It has bronze green eucalyptus like leaves, the clustered fruit is stalked, greenish white. Flowers are red with green outside. This species is widespread in drier places.

A. miraculosa :- The Fleshy Mistletoe, has dull blunt lance shaped leaves to 3 inches, no visible vein, yellow fruit and shining red flowers and is found on many shrubs in dry places.

A. pendula :- The Drooping Mistletoe, grows as large pear shaped hanging clusters on Eucalypts and has bronze green leaves to 8 inches, smooth, narrow, lanceolate with 3 distinct veins, red tassels of flowers near the end of branches, each tassel is a group of 3, the centre one stalkless, long red stamens, fruit oblong $\frac{1}{4}$ inch, green or brown. It is very widespread and common.

A. preissii :- The Wireleaf Mistletoe grows usually on Acacias. This species has thin cylindrical leaves like branchlets, to 3 inches long, plant not hairy, flowers are $\frac{1}{4}$ inch red and yellow and two or three together, the buds have an inflated top, fruit round and white. Also found in drier areas.

A. quandong :- The Grey Mistletoe grows only on Acacias. Blunt velvety grey, 5 nerved (or nerved less), leaves to 2 inches, about $\frac{3}{4}$ inch wide. centre buds not stalked, grey and turned up like candles on a candelabra, red attractive flowers. This is an aggressive mistletoe and can have a very adverse effect on Acacias.

DENDROPHTHROE vitellina :- The Long Flowered Mistletoe. Grows in the East of Victoria and has feather veined alternate lance shaped leaves, sometimes ovate, to 4 inches blunt, and much narrower at the stalk. Flowers are large, 2 inch deep red or red and yellow singly, or several from leaf bases, segments joined part way. This species is found near the coast and has many hosts.

KORTHALSELLA japonica :- The Jointed Mistletoe is cactus like with flattened spreading branchlets and with long veins, each section of a branch is narrowed at the base, which springs from the broad apex of the one below. Minute flowers are cuplike bracts springing from the shoulder like apex. It is found in sheltered forests to the drier inland. Very widespread.

LYSIANA exocarpi :- The Harlequin Mistletoe. Has tufts of stiff, blunt but narrow flat leaves to 4 inches, bright red flowers, long with yellow inside. Fruits are red to purple. Found on many species, it has an abundance of nectar.

MUELLERINA eucalyptoides :- The Creeping Mistletoe has a stiff erect bushy habit with thick smooth grey or bronze stems, leaves blunt, thick and pale green to 3 inches and $\frac{1}{2}$ inch wide with few visible veins. The flowers are rather large red and greenish yellow in loose clusters. Fruit green and pear shaped. It grows on many hosts with long roots creeping along branches. Widespread in Vic. and N.S.W.

M. celastroides :- The Coast Mistletoe is like *M. eucalyptoides* with even stiffer habits, leaves short and broad to 2 inches and 1 inch wide, oval, ovate, or obovate. On coastal trees but rarely Eucalypts.

NOTOTHIXOS subaureus :- The Golden Mistletoe some times grows on other mistletoes, bushy, with thick spreading branches. Leaves broad ovate, young growth and backs of all leaves golden with minute hairs. Flowers $\frac{1}{8}$ inch along short, usually bent, stalks, often branched. Eastern Victoria.

To really make identification hard, the grey and drooping mistletoes sometimes hybridize.

The Life Cycle.

In the sticky flesh of the berry is an embryo. This fruit is eaten by the mistletoe bird. Then in the birds droppings is a partly digested seed with some of the sticky flesh still clinging to it.

Where the bird has wiped its beak and other scratches in the bark, the seed quickly germinates and takes hold. Very soon a bulge appears, and then the young plant. This is a very critical time in the young plant's life.

cont.

Ultimately the branch is starved off and the mistletoe takes over with its club like root.

When the flower first opens it is really a pollen donor but after that the flower becomes "female" where pollen can be recovered. There is a physiological difficulty preventing self pollination.

There are a number of birds that pollinate mistletoe, most of these are Honeyeaters. When the flower's pollinated and the fruit has formed the Mistletoe Bird takes over as this bird takes the mistletoe fruit as food augmented by other fruits (they prefer mistletoe fruit).

The berry passes through the birds digestive system very quickly.

Mistletoe does damage trees. The plant wants only water and minerals from its host. With too much mistletoe the tree will die. There can be a reduced tree growth with 30% of the canopy lost to the mistletoe. If the tree dies so does the mistletoe.

It is interesting to note that mistletoe is invading introduced trees and causing damage.

On the credit side, they are not unattractive and provide food and nectar for a number of birds.

Blackbirds are thought to take the mistletoe seeds and so aid in their distribution.

MAY EXCURSION to DURHAM LEAD

When the group of twenty left Crockers Corner on the half day excursion to Durham Lead it was pleasing to see a number of the younger members in our ranks. They showed keen interest, and like all good children (on a Field Nats. Excursion), they were seen but not heard for most of the afternoon!

It was a perfect day for a stroll through the bush, quite mild and hardly a breath of wind. Conditions were ideal for bird watching we thought, but the birds had other ideas - it was a case of find me if you can! Very few were calling, though now and again the clear notes of the Grey Currawong could be heard in the still Autumn air. In one of the gullies we spotted a large Koala sitting rather precariously on a branch instead of the usual position with a nice firm backrest. In the same area a Wallaby was most obliging, sitting quietly while most of our group had a good view.

The highlight of the afternoon was the discovery, under some old pieces of hardboard on the site of a former bush hut, of a group of at least five Marsupial mice (The Brown Antechinus). We were able to examine one specimen at close quarters in spite of its energetic resistance.

Ken Hammond.

Plants noted during the afternoon excursion included:-

- Epacris impressa - Common Heath (pink, red and white forms)
- Hypericum gramineum - Small St. John's Wort
- Astroloma humifusum - Cranberry Heath
- Pterostylis parviflora - Tiny Greenhood
- " longifolia - Tall Greenhood
- Billardiera scandens - Common Appleberry
- Cassytha melantha - Coarse Dodder Laurel
- Wahlenbergia communis - Tufted Bluebell
- Gooderia lanata - Trailing Goodenia
- Dianella revoluta - Black-anther Flax-lily
- Eucalyptus aromaphloia - Scentbark
- Gompholobium huegelii - Farralla
- Acacia stricta - Hop Wattle
- " aculeatissima - Thin-leaf Wattle
- " gunnii - Ploughshare Wattle
- " mearnsii - Late Black Wattle
- Tetradlea ciliata - Pink Bells
- Exocarpos cupressiformis - Cherry Ballart
- Hypochoeris radicata - Cat's Ear (Flat Weed)
- Monotoca scoparia - Prickly Broom-heath
- Eriochilus cucullatus - Parson's Bands
- Oxylobium procumbens - Trailing Shaggy-pea

P.M.

REPORTS

- Helen Burgess:- Brought specimens of an unusual Fungus and an Osage Orange. This is an interesting plant, the wood being used for bows by the Osage Indians.
- Ken. Hammond:- Dead Shingleback Lizard- only the skin left, inside eaten out.
- Helen Burgess:- Bristle bird noted at W.V.F.N.C.A.
(Port Campbell.)

MUNGO TO WILLANDRA NATIONAL PARK - Continued

Mungo - concluded

by Gretel Manguss.

The property changed hands several times. In 1922 "Gol Gol", the then 203,000 ha. property was subdivided into smaller 16,000 ha. holdings for soldier settlers. The land now in the park was allotted to the Cameron brothers who named the small property "Mungo" after a scottish church called "St. Mungo". The property changed hands again in 1934. The buyer, Mr. A. Barnes, remained in possession of the station until 1978 when it was acquired by the NSW National Park and Wildlife Service:

Mungo was designated as a national park on 21st of March, 1979.

Flora and Fauna:

The distribution of plant species is directly influenced by the variety of land-forms. Bladder saltbush is dominant on the lakebed, belah (a leafless casuarina) is the main species on the sandplains bordering the lake, and mallee communities are predominant in the east-west and irregular dune country. With no sheep grazing anymore on the property considerable regeneration of native plant species is occurring. As a result of this there has been an increase in the number of birds such as emus, orange and white-fronted chats, which nest close to the ground, and pink cockatoos.

Red and western grey kangaroos, echidnas, native mice and bats are among the mammals to be found at Mungo. Reptiles are a common sight. Resident lizards in the park include shingle backs, bearded dragons and geckos. The western brown snake, common brown and whip snakes may also be seen, but we did not!

Willandra

We left Mungo at 8.30 am. on Easter Monday, travelling north-east towards Ivanhoe via Gol Gol and Clarebank Station through the same flat arid vastness of south west of NSW, with only the dust cloud many miles ahead disappearing in the mirage of the horizon. Our guide drew our attention to the fact that we would pass a district called "One Tree Plain"; we certainly did not doubt the correct description for this stretch of land!.

About lunchtime we arrived at Ivanhoe, a little town on the Cobb Highway. We were thirsty and so were the vehicles! At our rest place, outside the town, we had a surprise - suddenly a whirlwind sprang up, lifted a sheet of iron from a roof and whirled it high over our heads, luckily away from us. Did we run for shelter! Soon we were off again to the south.

Now we had a bit of a change of scenery - telegraph posts along the road, and lots of ravens who owned them. Well, where else could you build a nest? Here and there we could spot a lone sheep, emu, or kangaroo, but we had to be really alert to see them among those monotonous grass tufts.

At Mossgiel we left the highway, turned east and after 56 km. we headed north for 30 km. We finally sighted Willandra Park. Were we glad and relieved but more surprised about the diversity of semi-arid riverina habitat. There were more pleasant things to come - shearers quarters for some to occupy, hot showers available, electric light and a well equipped kitchen with gas-cooking! Just everything a humble, weary traveller would wish. Soon we were ready to explore this beautiful oasis.

History:

Willandra Station was first settled in the mid 19th Century and originally stretched almost the whole distance from Hillstone to Mossgiel - a holding of more than 294000 ha. By the early 20th Century the high quality of merino wool had ensured "Big Willandra" a secure place in the leadership of the expanding wool industry, and in the songs and legends of outback Australian folklore. Remnants of the bygone days of life on a western sheep station can be seen in the old fibre homestead (fenced off and in disrepair), the ramshed with its thatched roof and the park office which was once the jackaroo's quarters.

In 1972 an expired Western Lands Lease of 13000 ha. was gazetted as Willandra National Park. With funds from a donation from the Boral Foundation another 7000 ha. including the homestead area was purchased by the Service and added to the park in 1975. There is still a Shearing shed in use, but how many sheep are in the district I do not know. There are 5 acres to one sheep!

- to be concluded next issue !